

## University of Dundee

### Citizen Science Projects (MOOC) 2.10

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In the previous step we looked at key questions to consider when setting up an observation protocol.

Here, you can find [video instructions](<https://www.youtube.com/watch?v=fv3JCciOhrE>) for an observational protocol from the GROW Observatory to determine soil texture. You will also find a similar protocol and others on [how to determine soil texture using the Manipulative Test]([http://www.fao.org/tempref/FI/CDrom/FAO\\_Training/FAO\\_Training/General/x6706e/x6706e06.htm](http://www.fao.org/tempref/FI/CDrom/FAO_Training/FAO_Training/General/x6706e/x6706e06.htm)).

Let's consider some of the key points highlighted in these instructions. Soil texture is a stable feature of established soils unless you change it yourself. So, continuous measurements over time are not required, but it is crucial to know where the soil was taken from.

Soil texture varies with soil depth and across a site, so depending on your research question, you may want to take different probes from the same site. Also, soil texture is best taken from dry and clean soils (with no stones or organic material). The protocol described above will give you a rough indication of a soil texture class so that you could identify loamy sand or light clay, for example. A more accurate account of soil texture would be to precisely determine the percentage of sand, silt and clay in the soil. Especially for soils with clay content, this can only reliably be determined using lab tests.

##Try an activity!

Try the soil test yourself and ask someone else to try it as well, from the same soil (without telling them what result you got!). This will help you understand the “human error” component of measuring. The more times you try observations in different locations, the more experienced you will become. It will get easier to know what you are observing, and you will feel more confident in your ability to carry out observations and tests. Often, we need to see and experience contrast so that we can learn. Please share your findings and reflections below.

Further reading:

<https://medium.com/grow-observatory-blog/handy-tips-to-know-your-soil-type-and-soil-texture-85feee0fd356>